Behavior Problems, Social Competence and Academic Performance: A Comparative Study of Children in the School and Family Environments

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Abstract

The simultaneous study of child behavior in both the family and school environment can be relevant for the prevention of behavior problems. The present paper aimed to describe and compare the prevalence of behavior problems, social competence and academic performance in children with problems only in the school environment, only in the family environment or in both. Teachers, mothers, fathers and caregivers of 77 children with behavior problems participated in the study (pre-school and school-age children, boys and girls). The instruments used were: the CBCL Child Behavior Checklist and the TRF Teachers Report Form. The results showed a higher frequency of behavior problems and lower academic/social performance in children with problems in both environments, compared to those with problems only in the school or family environment. The teachers identified more internalizing problems when children showed problems only in the family environment and more internalizing/externalizing problems when this occurred in both environments. It was concluded that children who presented problems in both contexts had less social and academic competence.

Keywords: Behavior problems, social competence, academic competence, family, school.

Problemas de Comportamento, Competência Social e Desempenho Acadêmico: Um Estudo Comparativo de Crianças no Ambiente Escolar e Familiar

Resumo

O estudo simultâneo sobre comportamentos infantis em ambiente familiar e escolar, pode ser relevante para a prevenção de problemas de comportamento. O objetivo do presente artigo é descrever e com-
parar a frequência de problemas de comportamento, competência social e desempenho acadêmico em crianças com problemas apenas na escola, apenas na família ou em ambos os ambientes. Participaram deste estudo professoras e mães/pais/cuidadores de 77 crianças com problemas de comportamento (pré-escolares, escolares, meninos e meninas). Os instrumentos utilizados foram: CBCL *Child Behavior Checklist* e TRF *Teachers Report Form*. Os resultados indicaram maior frequência de problemas de comportamento e baixo desempenho acadêmico/social, em crianças que apresentavam problemas nos dois ambientes, em comparação com só no ambiente familiar ou escolar. Professores identificaram mais problemas de internalização no grupo com problemas em ambos ambientes e de externalização no grupo com problemas apenas na escola. Familiares identificaram mais problemas de internalização quando crianças apresentavam problemas apenas na família e de internalização/externalização quando em ambos os ambientes. Conclui-se que crianças que apresentavam problemas nos dois contextos tinham menos competência social e acadêmica.

**Palavras-chave:** Problemas de comportamento, competência social, competência acadêmica, família, escolar.

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**Los Problemas de Conducta, Competencia Social y Rendimiento Académico: Un Estudio Comparativo en Niños en el Entorno Escolar y Familiar**

**Resumen**

El estudio simultáneo sobre el comportamiento de los niños en el hogar y el medio ambiente de la escuela puede ser relevante para la prevención de problemas del comportamiento. El objetivo es describir y comparar la frecuencia de problemas de conducta, habilidades sociales y rendimiento académico en niños con problemas sólo en la escuela, sólo en la familia o en ambos entornos. El estudio incluyó a profesores y madres / padres / cuidadores de 77 niños con problemas de conducta (preescolar, escuela, niños y niñas). Los instrumentos utilizados fueron: CBCL *Child Behavior Checklist* y TRF *Teachers Report Form*. Los resultados indican una mayor frecuencia de problemas de conducta, bajo rendimiento académico/social, en niños con problemas en ambos entornos, en comparación con sólo el entorno familiar o escolar. Los maestros identifican más problemas de internalización en el grupo con problemas de medio ambiente y de la subcontratación en el grupo con sólo problemas en la escuela. Familia identificado más problemas de internalización cuando los niños tenían problemas sólo en la familia y la internalización / externalización cuando en ambos entornos. Se concluye que los niños con problemas en ambos contextos tenían menos competencia social y académica.

**Palabras clave:** Problemas de conducta, competencia social, competencia académica, familia, escuela.

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The literature on behavioral problems is broad, with some studies simultaneously evaluating reports from parents and teachers (Bernardo, Sales, Fuentes, & García-Martín, 2014; Bolsoni-Silva, Figueiredo, Manfrinato, & Marturano, 2006; Ercan, Bilaç, Özaslan, & Rohde, 2015; Korsch & Petermann, 2013; Lavigne, Dahl, Gouze, LeBaillie, & Hopkins, 2015; Rescorla et al., 2014; Rudasill et al., 2014). However, the literature lacks studies that consider, in the composition of the sample, children who present problems only in the school environment, only in the family environment or in both, aiming to investigate the identification of the nature of the problems presented, as well as possible relationships with social and academic performance.

Behavior problems (Achenbach & Rescorla, 2001) can be classified as internalizing (e.g., shyness, anxiety, depression) and externalizing (disobedience, aggressiveness, opposition). These behaviors can be understood, in a functional way, as operant behaviors, maintained by
their consequences, which can impair the access of the child to the reinforcers necessary to promote development (Alvarenga, Weber, & Bolsoni-Silva, 2016).

It is believed that, from the analysis of more frequent behavioral problems in a given population, it is possible to understand how these behaviors are maintained and, therefore, possible to manipulate variables that allow the development of more competent repertoires (Bolsoni-Silva & Carrara, 2010). Studies have shown that children with low social competence present more behavioral problems (Bandeira, Rocha, Souza, Del Prette, & Del Prette, 2006; Barham & Cia, 2009) and/or low academic competence (Barham & Cia, 2009; Olson & Hoza, 1993), which can have a detrimental impact on their development in different contexts.

Studies have also related the occurrence of behavioral problems to parental variables (Bandeira et al., 2006; Feitosa et al., 2011; Flett & Hewitt, 2013; Hohendorff, Couto, & Prati, 2013; Rauch & Lamphere, 2012; Samarakkody, Fernando, McClure, Perera, & De Silva, 2012; Van Dijk, Benninga, Grootenhuis, & Last, 2010). There are also studies that have identified the occurrence of behavioral problems as a result of the interaction established between the teacher and student (Bolsoni-Silva, Mariano, Loureiro, & Bonaccorsi, 2013; Fonseca, 2012; Uysal & Ergenekon, 2010). Furthermore, it is known that the evaluations of caregivers and teachers differ (Bolsoni-Silva et al., 2006). Therefore, the present study does not attempt to describe the social interactions established between family members and children and between teachers and students, but seeks to identify the frequency of behavior problems considering both the school and family environments.

Social competence implies a repertoire of social skills that is more likely to produce reinforcing consequences for the person and for the other interlocutors (Del Prette & Del Prette, 2010/2012). According to Loureiro and Sanches (2006) academic performance is an important indicator of the resources of the student related to the requirements of the school. For Freller et al. (2001), academic difficulties can be explained by different variables, among them, the teacher-student interaction, parental practices and the behaviors of the student.

Another important point refers to the description of the frequency of behavioral problems, social skills and academic performance in children referred to school clinics (Bolsoni-Silva, Paiva & Barbosa, 2009; D’Abreu & Marturano, 2011, Maravieski & Serralta, 2011; Melo & Perfeito, 2006; Scortegagna & Levandowski, 2004; Wielewichi, 2011). Such studies are important for identifying the problems and resources existing in the population, making it possible to trace the profile of children in psychological care. Some examples of these studies are described below.

Bolsoni-Silva et al. (2009) conducted a study on the disorders presented in children. Based on reports from 59 mothers/fathers/caregivers that sought psychological care, externalizing complaints (100.0%) were more frequently described than internalizing ones (49.0%), especially aggressiveness (47.5%), disobedience (35.5%) and temper tantrums (12.0%). D’Abreu and Marturano (2011) used a tracking instrument (Strengths and Difficulties Questionnaire - SDQ) and found that 90% of the children presented difficulties in at least one disorder, with the most prevalent being: 34% Attention Deficit Hyperactivity Disorder (ADHD) and Oppositional Defiant Disorder, 30% ADHD and Specific Phobia, 16% ADHD and Separation Anxiety Disorder, and 14% ADHD and Generalized Anxiety.

Melo and Perfeito (2006) found that the complaints described in the medical records of 139 children of a school clinic, from 2000 to 2002, referred to behaviors, attitude and emotional symptoms, respectively. Next, there were school-related complaints, which in general did not appear in isolation. The authors suggest that the problem would be in the lack of appropriate psychological conditions of the adults who have the function of caring for the child (Melo & Perfeito 2006). Scortegagna and Levandowski (2004) conducted a study of 111 referrals of children with school complaints; the authors defined “school complaint” as the referrals of children due to school problems or
behavioral and/or learning disorders. The results of the study by Scortegagna and Levandowski (2004) indicated complaints related to learning problems and behavior problems (externalizing and internalizing).

Based on the findings of the texts on problems referred to school clinics (Bolsoni-Silva et al., 2009; Maravieski & Serralta, 2011; Melo & Perfeito, 2006; Scortegagna & Levandowski, 2004; Wielewichi, 2011), it was concluded that there are multiple complaints from parents and teachers, including internalizing and externalizing problems and poor academic performance. Thus, the need to understand behavioral problems in the family and school contexts is evident, considering, therefore, multiple evaluators of the behaviors of the children.

In addition, it is considered that the sooner the problems are identified, the greater the chance of solving them early and of reducing the probability of future problems, presuppositions in accordance with Preventive (Oliveira, 2012) and Evidence Based Psychology (American Psychological Association [APA], 2006). In this sense, studies that have evaluated the behavior of children, through the reports of parents and teachers, with access to the school itself, are important and necessary. Some of these studies, which have used validated instruments to evaluate the behavior of the children in two environments (home and school), are described in sequence.

Bolsoni-Silva et al. (2006), with a community sample of 24 children with behavioral problems and 24 without problems, using a tracking instrument, found that the teachers identified more externalizing and internalizing behavior problems than the mothers, who, on the other hand, identified more social skills and more somatic complaints. In the sample without problems, the mothers and teachers did not differ regarding social skills, however, the mothers identified more behavior problems.

Bernerdo et al. (2014), using the Child Behavior Checklist (CBCL) and Teachers Report Form (TRF), sought to compare and analyze the severity of behavior problems, impulsivity and inattention in 104 adopted children. The authors concluded that the parents and teachers agreed in the assessments, with the exception of the subscale of anxiety and depression, in which the parents, rather than the teachers, identified higher scores for somatic complications and impulsivity/inattention. Regarding academic performance, there was an association between behavioral problems and poor performance only for the parents, however, for the teachers, the children with worse academic performance presented higher social isolation scores.

Rudasill et al. (2014) focused on the evaluation of childhood shyness in 104 preschool children, by both parents and teachers, aiming to verify the impact of this repertoire for language and attention problems. The authors used the Children’s Behavior Questionnaire (CBQ) and found discrepancies in the assessments, since only the teachers identified shyness as being correlated with attention and language problems, however, the parents and teachers agreed that the shyness was associated with low sociability. To evaluate the prevalence of ADHD in 417 children between 6 and 14 years of age, Ercan et al. (2015), using the TRF and CBCL, identified, above all, concordances between the reports of parents and teachers regarding the internalizing, externalizing and total problems scales.

Rescorla et al. (2014), also using the TRF and CBCL, compared reports of parents and teachers of 27,962 children from 21 different societies. The authors found a great deal of divergence between the respondents, with higher scores in the CBCL compared to the TRF. Korsch and Petermann (2013) also compared reports of parents and teachers of 160 preschool children, using the Strengths and Difficulties Questionnaire (SDQ) instrument and found disparities in the reports of parents and teachers. For the clinical and non-clinical groups, the parents identified more pro-social behaviors than the teachers, however, the respondents did not differ in the behavioral problem scores.

Lavigne et al. (2015), finding so much diversity in the reports of parents and teachers, argued that school and home are diverse
environments and thus both contexts should be considered in the evaluation of the behaviors of children. Empirically, with a sample of 344 children, using multiple instruments, these researchers sought to examine the impact of diverse variables on the different evaluations of parents and teachers, considering family stress and conflict, parental depression, parenting and factors of the child (negative affection and sensory regulation, among others). Lavigne et al. (2015) concluded that there were discrepancies in the reports of parents and teachers and that only family conflict was a predictor of these discrepancies.

Based on the results obtained in the studies mentioned, it is possible to conclude that: (a) there are more divergences between reports from parents and teachers (Bolsoni-Silva et al., 2006; Korsch & Petermann, 2013; Lavigne et al., 2015; Rescorla et al., 2014; Rudasill et al., 2014) than agreements (Bernerdo et al., 2014; Ercan et al., 2015), with the teachers sometimes identifying more problems (e.g. Bolsoni-Silva et al., 2006), and the parents sometimes identifying more problems (e.g. Rescorla et al., 2014), therefore, there is no uniformity in the findings of the literature; (b) parents report more somatic complaints in children than teachers (Bernerdo et al., 2014; Bolsoni-Silva et al., 2006); (c) parents highlight social skills more in children than teachers (Bolsoni-Silva et al., 2006; Korsch & Petermann, 2013); (d) few studies have evaluated academic performance concomitant with attention and language problems (Rudasill et al., 2014) and, in general, researchers have found a relationship between behavioral problems and low academic performance, on one hand (Bernerdo et al., 2014), and attention/language problems and timidity, on the other (Rudasill et al., 2014); (e) all the studies about comparisons between reports of parents and teachers mentioned used, in their samples, children with and without behavioral problems, although some of them evaluated specific problems such as ADHD (Ercan et al., 2015), shyness (Rutsill et al., 2014) and adoption (Bernerdo et al., 2014), with the studies that used the TRF and CBCL mainly using the raw instrument score and not clinical classifications (e.g. Bernerdo et al. 2014).

Although some studies have simultaneously evaluated the behavior of the children from the perspective of parents and teachers, there is no regularity in the results; with only some of them having focused on behavioral problems in general and, in addition, considering children with problems only in the family, only in school or in both contexts. It is hypothesized that children with problems in both settings would have more deficits in academic and social behavior, as well as having more behavioral problems.

Thus, the aim of the present study was to describe and compare the frequency of behavior problems, social competence and academic performance in preschool and school children with behavior problems only in the school environment, in the family environment or in both, using a non-probabilistic clinical sample.

**Method**

**Ethical Aspects**

The project was approved by the Research Ethics Committee of the university where the project was developed. It is part of a larger project, the authorization number of which is 5826/46/01/10.

**Participants**

The convenience sample of study participants was composed of 34 preschool children (26 boys and 8 girls) and 43 schoolchildren (29 boys and 14 girls), giving a total of 77 children, with behavioral problems. The preschool children had a mean age of 4.3 years ($SD=1.09$) and the schoolchildren had, a mean age of 8.2 years ($SD=1.84$). The mean age of the family respondents was 33 years ($SD=7.95$). The mean age of the preschool teachers was 43 years ($SD=8.04$) and the mean age of the school teachers was 36 years ($SD=9.48$).

The demographic characteristics of the sample of family members were: (a) 83.3% mothers, 7.1% fathers and 7% caregivers; (b) 78% of the family members were in a stable union, 11.9%
were single, 8% widowers and 8.7% divorced; (c) in terms of schooling, 36% of the sample had elementary education (complete or incomplete), 46% high school education (complete or incomplete) and 17.4% higher education; (d) 50.8% of the sample of family members worked outside the home; (e) in relation to family income, in minimum salaries, the data were: 13.5% - received up to one minimum salary; 27.8% - 2 minimum salaries; 27.0% - 3 minimum salaries; 11.9% - 4 salaries; 10.3% - 5 salaries; 8.8% more than 6 minimum salaries.

Sample

Data were collected between 2010 and 2012, with 112 teachers, who evaluated 224 children and with 186 mothers/fathers/caregivers. However, only some of them (118 children) were evaluated by both teachers and mothers/fathers/caregivers. The next step was to exclude from the sample the children that were non-clinical in the family and school settings simultaneously (assessed through the TRF and CBCL). Thus, the total sample consisted of 77 children evaluated as clinical by mothers/fathers/caretakers and teachers.

Instruments

The Child Behavior Checklist (CBCL) and the Teachers Report Form - TRF (Achenbach & Rescorla, 2001) for preschool and school children (4 to 18 years of age) were used. The instruments investigate, based on the reports of parents and teachers, respectively, the frequency of 20 items of social/academic competence and 113 responses indicative of behavior problems. Results are organized according to scales of internalizing, externalizing and total behavior problems. The CBCL also provides the identification of disorders according to the DSM-IV classifications. All problems identified are classification as clinical, nonclinical or borderline. For the present study, considering recommendations of Achenbach and Rescorla (2001), the bordering classifications were considered as clinical. In addition, for the school children, the instruments also assess academic performance. Bordin, Mari, and Caeiro (2003) found satisfactory test-positivity and morbidity criteria for the clinical and nonclinical profiles.

Data Collection Procedures

Before starting the data collection, approval was obtained from the Department of Early Childhood Education of a city in São Paulo state. In a second moment, Early Childhood Education schools (ECEs) and Elementary Education schools (EESs) were contacted to check their availability to participate in the project.

Data were collected from 14 Municipal ECEs and 12 Municipal EESs and from 186 family members that agreed to participate. From these, 77 children presented clinical indications and composed the sample of the present study. In the schools, the researcher informed the director or pedagogical coordinator about the aims of the study and, subsequently, informed the interested teachers. The teachers who agreed to participate signed the consent form and indicated a child they considered to have behavioral problems.

Mothers/fathers/caregivers were contacted to verify the consent of the teachers to respond to the instruments on the behavior of the children, at which point they were also invited to participate in the study. The mothers/fathers/caregivers who agreed to participate signed the consent form. For the children whose parents agreed to the study, the teachers responded to the TRF. After this step, the parents/caregivers responded to the CBCL in places that they thought they would be more available (at home or at the school). At the school and at home, informative materials on the study subject were delivered, with lectures on behavior problems, social skills and parental practices conducted for the schools that requested this.

Data Processing and Analysis Procedure

The data tabulation sequence was: (a) to analyze the data using the ASEBA Software, in order to codify the behavior of the children from the TRF and the CBCL in all categories provided in the instruments; (b) to organize the participants into groups according to whether or not they have behavior problems only in the family environment (CBCL),
only in the school environment (TRF), or in both (CBCL and TRF). This classification was based on the TRF and CBCL (internalization, externalization and total problems scales) so that, for a given child to be considered clinical, his/her behavior would need to score as clinical or borderline in at least one of the scales mentioned; (c) to describe and compare the frequency of problems by means of descriptive and inferential statistical analyses, considering groups with problems only at school, only in the family environment or in both (Chi-squared test); (d) to select the categories of the TRF and CBCL in common for preschool and school children; (e) to compare each of the categories of the TRF considering the three clinical groups, that is, those that had problems only in the school environment, only in the family environment or in both (Chi-squared test); (f) to compare (Chi-squared test) each of the CBCL categories considering the three clinical groups (problems only in the school environment, only in the family environment or in both); (g) to describe and compare (Chi-squared test) the social competence and academic performance of the students, from the TRF and CBCL, considering the three clinical groups. The level of significance considered was 5%. The results were organized in the form of tables.

Results

The results section presents Tables 1 and 2 with the comparisons of the data obtained with the clinical groups regarding the categories of the TRF and CBCL, respectively. Table 3 shows the findings of the comparisons between the clinical groups for the categories of academic performance and social competence for the students.

Table 1
Number of Children with Problems, in the Categories of the TRF, in the Comparison between Groups: Problems in the School Environment, in the Family Environment or in Both

<table>
<thead>
<tr>
<th>Categories</th>
<th>School (n = 19)</th>
<th>Family (n = 28)</th>
<th>Both (n = 30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety/depression</td>
<td>6 (31.58%)</td>
<td>0 (0.00%)</td>
<td>9 (30.00%)</td>
</tr>
<tr>
<td>Somatic compl.</td>
<td>1 (5.26%)</td>
<td>2 (7.14%)</td>
<td>3 (10.00%)</td>
</tr>
<tr>
<td>Aggressive compl.</td>
<td>13 (68.42%)</td>
<td>0 (0.00%)</td>
<td>16 (53.33%)</td>
</tr>
<tr>
<td>Affective problems</td>
<td>7 (36.84%)</td>
<td>0 (0.00%)</td>
<td>11 (36.67%)</td>
</tr>
<tr>
<td>Anxiety problems</td>
<td>6 (31.58%)</td>
<td>1 (3.57%)</td>
<td>7 (23.33%)</td>
</tr>
<tr>
<td>Oppositional defiant</td>
<td>10 (52.63%)</td>
<td>0 (0.00%)</td>
<td>14 (46.67%)</td>
</tr>
<tr>
<td>Attention problems</td>
<td>14 (73.68%)</td>
<td>0 (0.00%)</td>
<td>15 (50.00%)</td>
</tr>
<tr>
<td>Attention deficit/hyperactivity</td>
<td>14 (73.68%)</td>
<td>0 (0.00%)</td>
<td>17 (56.67%)</td>
</tr>
<tr>
<td>Internalizing - TRF</td>
<td>8 (42.11%)</td>
<td>0 (0.00%)</td>
<td>19 (63.33%)</td>
</tr>
<tr>
<td>Externalizing - TRF</td>
<td>17 (89.47%)</td>
<td>0 (0.00%)</td>
<td>25 (83.33%)</td>
</tr>
<tr>
<td>Total - TRF</td>
<td>18 (94.74%)</td>
<td>1 (3.57%)</td>
<td>24 (80.00%)</td>
</tr>
</tbody>
</table>

According to Table 1, regarding the teachers’ reports, the scale that measures the internalizing behavioral pattern was more frequent among the children with problems in both environments (63.33%), compared to those with problems only in the school (42.11%). Regarding the data related to the pattern of externalizing behavioral, a higher frequency of problems was observed only in the school (89.47%) when compared to both environments (83.33%).
The data show that the teachers indicated that children with problems at school had attention problems and ADHD at a frequency of 73.68%, aggressive behavior 68%, oppositional defiant disorder 52.63%, affective problems 36.84% and anxiety problems and anxiety/depression problems at a frequency of 31.58%. Regarding the children with problems in both environments, 56.67% had ADHD, 53.33% aggressive behavior, 46.67% oppositional defiant disorder, 36.67% affective problems and 23.33% had anxiety symptoms. For the group with problems only in the family environment, the frequency of indications in the instrument was lower for all the disorders, when compared with the school environment and both environments.

The Chi-squared comparisons of the TRF, in the comparison of the groups of children presenting problems in both settings or in that of the school, did not differ. Regarding the Chi-squared comparisons, from the perspective of the teachers, for problems only in the family environment or only in the school environment there were: (a) anxiety/depression (clinical family = 0; clinical school only = 6, $X^2 = 10.136, p = .001$); (b) aggressive behaviors (clinical family = 0, clinical school only = 13, $X^2 = 26.483, p = .001$); (c) affective problems (clinical family = 0, clinical school only = 7, $X^2 = 12.121, p = .001$); (d) anxiety (clinical family = 1, clinical school only = 6, $X^2 = 7.005, p = .008$); (e) oppositional defiant (clinical family = 0, clinical school only = 10, $X^2 = 18.720, p = .001$); (f) attention problems (clinical family = 0, clinical school only = 14, $X^2 = 29.384, p = .001$); (g) ADHD (clinical family = 0, clinical school only = 14, $X^2 = 29.384, p = .001$); (h) internalizing (clinical family = 0, clinical school only = 8, $X^2 = 14.208, p = .001$); (i) externalizing (clinical family = 0, clinical school only = 17, $X^2 = 39.249, p = .001$); (j) total (clinical family = 1, clinical school only = 18, $X^2 = 39.062, p = .001$). From these comparisons, it was concluded that, from the perspective of the teachers, the frequency of problems was greater for the group of children with problems only at school (anxiety/depression, affective problems, attention problems, aggressiveness, anxiety, ADHD, oppositional problems) than for those with problems only in the family environment.

Regarding the Chi-squared comparisons, from the perspective of the teachers, for problems only in the family environment versus both environments there were: (a) anxiety/depression (clinical family = 0, clinical both environments = 9, $X^2 = 9.943, p = .002$); (b) aggressive behaviors (clinical family = 0, clinical both environments = 16, $X^2 = 20.622, p = .003$); (c) affective problems (clinical family = 0, clinical both environments = 11, $X^2 = 12.670, p = .001$); (d) anxiety (clinical family = 1, clinical both environments = 7, $X^2 = 4.577, p = .029$); (e) oppositional defiant (clinical family = 0, clinical both environments = 15, $X^2 = 18.884, p = .001$); (g) internalizing (clinical family = 0, clinical both environments = 19, $X^2 = 17.224, p = .001$); (h) externalizing (clinical family = 0, clinical both environments = 25, $X^2 = 26.373, p = .001$); (i) total (clinical family = 0, clinical both environments = 24, $X^2 = 41.010, p = .001$). It was concluded that, for the teachers, the children in the group with problems in both environments presented statistically more behavioral problems in all scales (externalizing, internalizing and total problems), as well as in the majority of the subscales (anxiety/depression, attention problems, aggressiveness and anxiety). However, it is highlighted that oppositional/defiant behavior was more frequent for the children with problems in both environments when compared to those who only had difficulties in the family environment.

According to Table 2, there was a higher frequency of externalizing and total problems in the children with problems in both environments (73.33% and 90.00%, respectively) when compared to those with problems only in the family environment (39.29% and 64.29%, respectively). For the mothers/fathers/caregivers, the distribution of problems between the subcategories was distinct for all three groups. For the children with problems only at school, attention problems (26%) and ADHD and anxiety (10%) were highlighted. In relation to the children identified as having problems only in the family environment,
the frequencies were: 78% for anxiety problems; 75% for anxiety/depression; 50% for somatic problems; 39% for ADHD; 35% for aggressive and affective behavior; 21% for oppositional defiant behavior and attention problems. Concerning the children with problems in both environments, the following frequencies were observed: 66% had anxiety/depression; 63% anxiety; 60% aggressiveness; 46% attention problems; 40% affective; 36% oppositional defiant; 33% somatic complaints and 26% ADHD. These data show that, also from the perspective of the parents, the children with problems in both environments presented more behavior problems, especially in the externalizing problems and total problems scales, than the children with problems only in the family environment.

Regarding the Chi-squared comparisons, from the perspective of the caregivers, for the children with problems in both environments compared to those who had difficulties only at school, there were: (a) anxiety/depression (clinical both environments = 20, clinical school only = 0, $X^2 = 20.571, p = .001$); (b) somatic complaints (clinical both environments = 10, clinical school only = 0, $X^2 = 20.571, p = .001$); (c) aggressive behaviors (clinical both environments = 18, clinical school only = 0, $X^2 = 18.019, p = .001$); (d) affective problems (clinical both environments = 12, clinical school only = 1, $X^2 = 6.759, p = .009$); (e) anxiety (clinical both environments = 19, clinical school only = 2, $X^2 = 8.562, p = .003$); (f) oppositional defiant (clinical both environments = 11, clinical school only = 0, $X^2 = 8.562, p = .003$); (g) internalizing (clinical both environments = 25, clinical school only = 0, $X^2 = 31.304, p = .001$); (h) externalizing (clinical both environments = 22, clinical school only = 0, $X^2 = 24.369, p = .001$); (i) total (clinical both environments = 27, clinical school only = 1, $X^2 = 33.006, p = .001$). The findings of these comparisons show that the children with problems in both environments, compared to those who had difficulties only at school, presented more behavioral problems in all the scales of the CBCL (internalizing, externalizing and total problems) as well as in various subscales (anxiety/depression, somatic problems, aggressiveness, affective problems, anxiety and oppositional/defiant).

The comparisons of problems in the family environment versus problems in the school environment showed: (a) anxiety/depression (clinical family = 21, clinical school only = 0, $X^2 = 26.250, p = .001$); (b) somatic complaints
(clinical family = 14, clinical school only = 0, \( X^2 = 13.530, p = .001 \)); (c) aggressive behaviors (clinical family = 10, clinical school only = 0, \( X^2 = 8.260, p = .003 \)); (d) affective problems (clinical family = 10, clinical school only = 1, \( X^2 = 5.795, p = .016 \)); (e) anxiety (clinical family = 22, clinical school only = 2, \( X^2 = 21.488, p = .001 \)); (f) oppositional defiant (clinical family = 6, clinical school only = 0, \( X^2 = 4.615, p = .032 \)); (g) internalizing (clinical family = 25, clinical school only = 0, \( X^2 = 37.500, p = .001 \)); (h) externalizing (clinical family = 11, clinical school only = 0, \( X^2 = 9.706, p = .001 \)); (i) total (clinical family = 18, clinical school only = 1, \( X^2 = 16.533, p = .001 \)). The findings show that there were more problems in the family environment than in that of the school in all scales (internalizing, externalizing and total) and subscales (anxiety/depression, somatic complaints, aggressiveness, affective problems, anxiety and oppositional/defiant).

Regarding the Chi-squared comparisons between the family environment and both environments, there were: (a) attention problems (clinical family = 6, clinical both environments = 14, \( X^2 = 4.083, p = .043 \)); (b) externalizing (clinical family = 11, clinical both environments = 22, \( X^2 = 6.193, p = .013 \)); (c) total (clinical family = 18, clinical both environments = 27, \( X^2 = 4.655, p = .013 \)). These results show that only the attention problems subscale and the externalizing and total problems scales presented more problems in the group of children with difficulties in both the school and family environments compared to those who had problems only in the family environment.

### Table 3
Number of School-Age Children with Problems in the Categories of the TRF and CBCL for Social and Academic Performance in the Groups: Problems in the School Environment, in the Family Environment or in Both

<table>
<thead>
<tr>
<th>Categories</th>
<th>School ((n = 9))</th>
<th>Family ((n = 16))</th>
<th>Both ((n = 18))</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Categories of the TRF</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic performance</td>
<td>8 (88.89%)</td>
<td>3 (18.75%)</td>
<td>10 (55.56%)</td>
</tr>
<tr>
<td>Work</td>
<td>5 (55.56%)</td>
<td>2 (12.50%)</td>
<td>9 (50.00%)</td>
</tr>
<tr>
<td>Behavior</td>
<td>4 (44.44%)</td>
<td>0 (0.00%)</td>
<td>9 (50.00%)</td>
</tr>
<tr>
<td>Learning</td>
<td>4 (44.44%)</td>
<td>3 (18.75%)</td>
<td>5 (27.78%)</td>
</tr>
<tr>
<td>Happiness</td>
<td>0 (0.00%)</td>
<td>0 (0.00%)</td>
<td>6 (33.33%)</td>
</tr>
<tr>
<td>Total competence score</td>
<td>5 (55.56%)</td>
<td>3 (18.75%)</td>
<td>10 (55.56%)</td>
</tr>
<tr>
<td><strong>Categories of the CBCL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity</td>
<td>5 (55.56%)</td>
<td>7 (43.75%)</td>
<td>11 (61.11%)</td>
</tr>
<tr>
<td>Social</td>
<td>0 (0.00%)</td>
<td>2 (12.50%)</td>
<td>3 (16.67%)</td>
</tr>
<tr>
<td>Academic</td>
<td>4 (44.44%)</td>
<td>2 (12.50%)</td>
<td>8 (44.44%)</td>
</tr>
</tbody>
</table>

Table 3 highlights that, for the teachers, difficulties related to feeling happy were identified in the children with problems in both environments (33.33%). In the comparison between the groups of children with problems in school and those with problems in both environments, the total competence score differentiated the groups (clinical both environments = 10, clinical school only = 5, \( X^2 = 7.156, p = .028 \), with more difficulties in the group of children with problems in both environments.

Considering the comparison between the children with problems only in school environment and those with problems only in the family
environment, the total competence score, from the TRF, differentiated the groups (clinical school = 5, clinical family = 3, \(X^2 = 11.503, p = .003\)), with lower scores for those with problems in the family environment. It was found, therefore, that academic performance is worse in children with problems only in school, when compared to those with problems only in the family environment (clinical school = 8, clinical family = 3, \(X^2 = 12.526, p = .002\)).

The same occurred in the comparisons between the family environment and both environments groups, in which the teachers indicated that there were more problems related to social competence for the children with problems in both environments (clinical family = 3, clinical both environments = 10, \(X^2 = 4.859; p = .028\)). For the teachers, these children also had more academic difficulties (clinical family = 3, clinical both environments = 10, \(X^2 = 4.332, p = .037\)).

The academic subscale of the CBCL, according to Table 3, differentiated the children with problems only in the family environment from those with problems in both environments (clinical family = 2, clinical both environments = 8, \(X^2 = 4.286, p = .038\)), with a higher frequency for children with problems in both environments. The other comparisons did not present differences.

Discussion

The present study described and compared the profile of academic and social performance problems in children with behavior problems in the family environment, in the school environment or in both, from the point of view of two different evaluators (parents/caregivers and teachers). Firstly, we discuss the findings related to the frequency of the problems and, subsequently, the comparison between the groups.

The frequencies of problems from the perspective of the teachers, considering values above 40%, were: (a) children with problems in both environments: 56.00% ADHD, 53.00% aggressiveness and 46.00% oppositional/defiant; (b) children with problems only in school: 73.36% ADHD, 68.00% aggressiveness and 52.63% oppositional defiant; (c) children with problems only in the family environment: low frequency of problems. From the perspective of the parents/caregivers, values above 40% were: (a) children with problems in both environments: 66.00% anxiety/depression, 63.00% anxiety, 60.00% aggressiveness, 46.00% attention problems and 40.00% affective problems; (b) children with problems only at school: low frequency of problems; (c) children with only problems in the family environment: 78.00% anxiety, 75.00% anxiety/depression, 50.00% somatic problems. It was therefore noted that the family members identified more internalizing problems than the teachers, although they also reported externalizing problems. These findings are consistent with those obtained by Bolsoni-Silva, Loureiro, and Marturano (2016) who also concluded that externalizing problems annoy adults more and that, for teachers, such behaviors have an important impact on learning, which can cause them to be noticed more. The literature states that internalizing problems are poorly identified (Dozois & Dobson, 2004), although they are strong predictors of problems in adolescence (Cleverley, Bennett, & Duk, 2013).

In general, the occurrence of these problems was greater than those reported in previous studies (Bolsoni-Silva et al., 2009; D’Abreu & Marturano, 2011), possibly because these studies did not consider only samples that were clinical for behavior problems, on one hand, and on the other, used tracking and non-diagnostic tools to identify the behavior problems. It can be concluded that, as in the studies with samples from school clinics (Bolsoni-Silva et al., 2009; D’Abreu & Marturano, 2011, Maravieski & Serralta, 2011; Melo & Perfeito, 2006; Scortegagna & Levandowski, 2004; Wielewichi, 2011), in the present study it was possible to verify a high occurrence of behavioral problems in a sample of participants recruited in schools. It is believed that it is important that school psychologists, when assessing student behaviors, use multiple informants, as opinions may differ, which will certainly influence the treatment plan. In addition, the early identification of problems, even before children are referred to school clinic ser-
vices and/or others, is in accordance with Preventive Psychology (Oliveira, 2012). Studies such as the present one, which identify important variables, can help to plan effective and efficient interventions, that is, to solve problems in the shortest possible time, in accordance with Evidence Based Psychology (APA, 2006).

Some researchers have proposed and evaluated interventions with children (Batista & Marturano, 2015; Falcão & Bolsoni-Silva, 2015) and/or parents (Bolsoni-Silva & Marturano, 2010; Cia, Barham, & Fontaine, 2010) to reduce behavioral problems and increase the social and academic competence of the children, showing good examples of how to reverse problems in the school and/or family contexts.

In summary, regarding the frequency and type of problems, the difference between the responses of the parents/caregivers and those of the teachers can be noted, which is in agreement with the majority of studies in the area (Bolsoni-Silva et al., 2006; Korsch & Petermann, 2013; Lavigne et al., 2015; Rescorla et al., 2014; Rudasill et al., 2014). The method of the present study contributed to elucidate one of the possible reasons for the discordance, because, when isolating children with problems only in the school environment or only in the family environment, the identification of problems only by teachers for the first group and only by family members for the second group was clearly verified. The parents/caregivers agreed that children with problems in both environments presented more problems than other children, corroborating other findings in the literature (Bernerdo et al., 2014; Ercan et al., 2015), although these were more externalizing for the teachers and more internalizing for the parents/caregivers.

As found by Lavigne et al. (2015), family conflicts were predictors of discrepancies between the evaluations of parents and teachers, thus identifying a relevant variable. Another variable that should be considered is the clinical occurrence of problems in the two contexts, which the studies cited did not investigate (Bernerdo et al., 2014; Bolsoni-Silva et al., 2006; Ercan et al., 2015; Korsch & Petermann, 2013; Lavigne et al., 2015; Rescorla et al., 2014; Rudasill et al., 2014). The present study, by controlling this variable, helped clarify this question of divergence. Divergence must also be considered due to children behaving in different ways according to the environment (Lavigne et al., 2015). The findings of the second set of results, referring to the comparisons between the groups (Chi-squared test), are summarized in sequence.

Comparisons between the group that presented problems in both contexts and the group with problems only in the school environment showed: (a) for the teachers, internalizing and externalizing problems occurred more frequently for the group with problems in both environments; (b) for the parents/caregivers, all CBCL scales (externalizing, internalizing and total) and subscales (anxiety/depression, somatic problems, aggressiveness, affective problems, anxiety and oppositional/defiant) occurred more for the group of children with problems in both environments.

Comparisons between the group that presented problems in both contexts and the group with problems only in the family environment: (a) for the teachers, the deficient social and academic performance, behavioral problems (externalizing, internalizing and total) and subscales of problems (anxiety/depression, attention problems, aggressiveness and anxiety) occurred more for the children with difficulties in both contexts; (b) for the parents/caregivers, academic problems and behavioral problems involving attention, externalizing and total problems were more frequent for children with problems in both environments.

Comparisons between the group that presented problems only in the school environment and the group with problems only in the family environment: (a) for the teachers, the group with difficulties only in school presented less academic and general competence, with anxiety/depression, attention problems, aggressiveness, anxiety, ADHD and oppositional/defiant problems also being more frequent for this group; (b) conversely, from the opinion of the parents/caregivers, the children with the more difficul-
ties were those identified as having problems only in the family environment, in the general scales (internalizing, externalizing and total) and in the subscales (anxiety/depression, somatic complaints, aggressiveness, affective problems, anxiety and oppositional/defiant problems) of the CBCL. These comparisons confirmed that the family members identified more difficulties in those children with problems in this context and, conversely, the teachers reported more problems in those with more difficulties in the school context.

Regarding the subcategories of the TRF and CBCL, the results of the present study, for both teachers and parents, are very similar to those of D’Abreu and Marturano (2011), highlighting ADHD, oppositional defiant disorder and anxiety problems. However, in the present study, aggressive, affective and depressive behaviors were also highlighted. For the group with problems in both environments, compared to those with problems only at school, according to the TRF, statistical comparisons did not identify differences between the groups, however, regarding the occurrence, the teachers reported more problems in the internalizing scale for the group with problems in both environments and more externalizing problems for the group with problems only in the school. However, the parents/caregivers evaluated problems in the three CBCL scales as being more frequent for the group with problems in both environments, although with statistical differences only in externalizing and total problems. It can be concluded that the two evaluators reported more problems for the group with difficulties in both environments. These results could not be discussed in relation to the literature since none of the studies (Bernerdo et al., 2014; Bolsoni-Silva et al., 2006; Ercan et al., 2015; Korsch & Petermann, 2013; Lavigne et al., 2015; Rescorla et al., 2014; Rudasill et al., 2014) focused only on clinical samples.

Regarding the academic and social performance, the results attested to the co-occurrence of behavior problems and learning difficulties and lower social competence, in a manner consistent with other studies in the area (Barham & Cia, 2009; Olson & Hoza, 1993), both from the perspective of the parents/caregivers and that of the teachers. As highlighted by Loureiro and Sanches (2006), academic performance is a good indicator to use in the school. It also seems pertinent to raise the hypothesis that academic performance is multi-determined and, for its better understanding, it is necessary to evaluate the teacher-student interaction, the parental practices and the behaviors of the student (Freller et al., 2001). Several studies show the influence of the interactions in the family (Feitosa et al., 2011; Flett & Hewitt, 2013; Hohendorff et al., 2013; Rauch & Lamphear, 2012; Samarakody et al., 2012; Van Dijk et al., 2010) and in the school (Bolsoni-Silva et al., 2013; Fonseca, 2012; Uysal & Ergenekon, 2010) on the development of children.

Final Considerations

The present study described and compared the frequency of behavior problems and academic and social competence in children with problems in only one environment (family, school) or in both environments. In general, the children with problems in both environments presented externalizing and internalizing problems, with a relationship between these repertoires and the academic and social competence. The teachers and caregivers differed in the identification and frequency of the problems evaluated, however, agreed that the children with problems in both the school and family environments presented more behavior problems and less social competence.

Strengths of the study include the use of diagnostic tools, considering the reports of caregivers and teachers and the organization of the groups of children in two environments. The limitations of the present study were the small sample, which was by convenience, and not using direct observation measures, making it difficult to reach a definitive conclusion as to whether these children had problems in the contexts evaluated. Also the groups of children with problems were not equivalent regarding schooling.

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and gender, which should be included in future studies. The evaluation of the social interactions established between family members and children, as well as between teachers and students, is also recommended in order to better understand the emergence and/or maintenance of behavioral problems and their relationships with academic and social performance.

Authors’ Contributions

Substantial contribution in the concept and design of the study: Alessandra Turini Bolsoni-Silva.

Contribution to data collection: Claudya Perallis, Patricia Nunes.

Contribution to data analysis and interpretation: Alessandra Turini Bolsoni-Silva.

Contribution to manuscript preparation: Alessandra Turini Bolsoni-Silva, Claudya Perallis, Patricia Nunes.

Contribution to critical revision, adding intelectual content: Alessandra Turini Bolsoni-Silva.

Conflicts of interest

The authors declare that they have no conflict of interest related to the publication of this manuscript.

References


Received: 27/09/2016
1ª revision: 04/04/2017
2ª revision: 17/07/2017
Accepted: 23/07/2017

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